REMARKS

This amendment is in response to the Official Action mailed December 15, 2004 rejecting all of the pending claims, namely, claims 1-45. Applicants have amended Claims 1, 8, 12 and 18-27. Claims 1-45 are again presented for the Examiner's consideration. Claims 1, 8, 18 and 28 are independent.

As an initial matter, the Examiner objected to claim 12 because the term "form" appeared to be a typographical error. This term has been amended in this claim to "from".

Claims 18-27 were rejected under 35 U.S.C. § 101 as being drawn to non-statutory subject matter. Independent claim 18 has been amended, to replace "data stream" with "computer system," and dependent claims 19-27, which depend upon claim 18, have been similarly amended. As amended, these claims clearly are drawn to statutory subject matter. Therefore, Applicants respectfully request that the rejection under 35 U.S.C. § 101 of claims 18-27 be withdrawn.

Claims 1-45 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,410,727 ("*Jaffe*") in view of U.S. Patent No. 5,630,162 ("*Wilkinson*"). For the reasons discussed below, Applicants respectfully request that this rejection also be withdrawn.

As an initial matter, although the Examiner has rejected claims 1-45 under 35 U.S.C. § 103(a), the Official Action does not address any specific claim. The Examiner merely provides general comments regarding *Jaffe* and *Wilkinson* at pages 3-4 of the Official Action. In this regard, the Official Action does not meet the minimum requirements of the *Manual of Patent Examining Procedure* (8th ed., Rev. 2, May 2004) for establishing a *prima facie* case of obviousness. *See, MPEP* at §§ 706.02(j) and 2143.03. For this reason alone, this rejection should be withdrawn. The combination of *Jaffe* and *Wilkinson*, moreover,

clearly does not establish a *prima facie* case of obviousness of the claimed invention.

Jaffe discloses "an input/output system for a massively parallel SIMD [single instruction, multiple data] computer providing a two-dimensional data transfer scheme between a host computer and the SIMD computer." (Col. 3, lns. 27-30.) As explained in the specification, SIMD computer 100 includes a processor array 110, which interfaces to host computer 200 through an input/output processor 320. (*See* FIGS. 2-3.) The processor array 110 has "a plurality of processing elements 120..., a network 130 which connects the individual processing elements 120 and a plurality of SIMD memory devices 140." (Col. 5, lns. 28-31.)

Wilkinson discloses a "parallel processor array of the SIMD or MIMD [multiple instruction, multiple data] type." (Abstract.) The parallel processor array "provides an array communication network with paths for the passing of information between elements of the array." (Col. 12, lines 26-28) "Each processing element segment of the parallel array contains plural copies of a processor memory element, which is contained within the limits of a single semiconductor chip." (Col. 12, lns. 45-48.)

With respect to independent claim 1, neither *Jaffe* nor *Wilkinson* discloses or suggests, either alone or in combination, "a plurality of first processing units having the same instruction set architecture." Neither of these references, moreover, discloses or suggests that the first processing units are "operable to process software cells transmitted over said network." In addition, these references do not disclose or suggest that the software cells comprise "a program compatible with said instruction set architecture, data associated with said program and an identification number uniquely identifying said software cell among all of said software cells being

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transmitted over said network." The Examiner's rejection simply ignores this claim language.

Notwithstanding the failure to address each and every element of the claim, the Examiner admits that "*Jaffe* did not specifically disclose processing data comprising an identification as claimed." (Official Action, p. 3, ¶ 8.) In order to address this deficiency, it was asserted that "*Wilkinson* further disclosed data communication messages to include destination addresses, or in other words an identification." (Official Action, p. 4, ¶ 9.) This reliance is based solely on the statement in *Wilkinson*: "If communication is of the random type, each message carries a destination address, and passes through the network with possible stops at intermediate nodes." (Col 15, lns 16-18.) However, the use of destination addresses is not what is claimed. Although *Wilkinson* discloses a <u>destination address</u> carried by each message for routing purposes, there is simply no teaching or suggestion of "<u>an identification number uniquely identifying said software cell among all of said software cells being transmitted over said network</u>," as required by independent claim 1. In addition, *Wilkinson* does not teach or suggest the other software cell limitations of the claim. Therefore, *Wilkinson* fails to remedy the deficiencies of *Jaffe*.

With respect to independent claim 8, neither *Jaffe* nor *Wilkinson* discloses or suggests, either considered alone or in combination, "a program for processing by one or more of said processors; data associated with said program; and a global identification uniquely identifying said software cell among all software cells being transmitted over said network." Again, the Examiner's rejection ignores this claim language.

Similarly, with respect to amended independent claim 18, neither *Jaffe* nor *Wilkinson* discloses or suggests, either alone or in combination, a computer system having software

cells, wherein "each of the software cells [comprises] a program for processing by one or more of said processors; data associated with said program; and a global identification uniquely identifying said software cell among all software cells being transmitted over said network."

With respect to independent claim 28, neither *Jaffe* nor *Wilkinson*, discloses or suggests, either alone or in combination, "storing in said main memory said programs and said data associated with said programs; directing with said second processing unit any one of said first processing units to process one of said programs; directing with said second processing unit said memory controller to transfer said one program and data associated with said one program from said main memory to the local memory exclusively associated with said one first processing unit; instructing with said second processing unit said one first processing unit to initiate processing of said one program from said one first processing unit's local memory; and in response to said instructing, processing with said one first processing unit said one program and said data associated with said one program from said local memory exclusively associated with said one first processing unit." *Jaffe* and *Wilkinson* simply do not disclose this subject matter, and the Official Action provides no indication to the contrary.
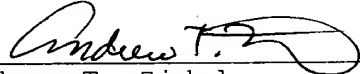
Jaffe and *Wilkinson*, therefore, whether considered individually or in combination, fail to teach or suggest all of the limitations of independent claims 1, 8, 18 and 28. Claims 2-7, 9-17, 19-27, and 29-45 depend from independent claims 1, 8, 18 and 28, respectively, and contain all the limitations thereof as well as other limitations that are neither disclosed nor suggested by these references. Applicants respectfully request, therefore, that the rejection of claims 1-45 under 35 U.S.C. § 103(a) be withdrawn.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: March 15, 2005   Respectfully submitted,

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